DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Casey, William
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-026783
Date Inspected: 28-Nov-2011

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time: 700
OSM Departure Time: 1730
Location: Jobsite

CWI Name:	As noted below			**CWI Present:**	☑ Yes	☐ No	
Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Approved WPS:**	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: SAS OBG

Summary of Items Observed:

Quality Assurance Inspector (QA) Douglas Frey was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

1. 14W/PP126.7/W2.5 Vent Hole (Exterior)
2. 14W/PP125/W3/W4 Lifting Lug Hole (Exterior)
3. 14W/PP126.7/W5 Vent Hole (Exterior)
4. 14W/PP127.2/W1 Vent Hole (Exterior)

Orthotropic Box Girder (OBG) section: The QC Documents observed being used by this QA Inspector for the following weld joints appeared to be designated as Seismic Performance Critical Members (SPCM).

1. 14W/PP126.7/W2.5 Vent Hole (Exterior)

This QA Inspector made random observations of ABF welder Mike Jimenez (ID 4671) perform the Shielded Metal Arc Welding process (SMAW) in the 1G flat position on Vent Hole (VH) 14W/PP126.7/W2.5. This QA Inspector observed QC Inspector Sal Merino measure the pre-heat temperature to verify a minimum of 10°C was achieved. This QA Inspector also observed the QC Inspector monitoring the welding and verifying that the parameters were in compliance pertaining to ABF-WPS-D15-1050A-CU. The parameters were recorded as (Amperes=190) utilizing a 4.8 mm E7018-H4R electrode. During in process welding, this QA Inspector noted that the QC Inspector measured the inter-pass temperatures to maintain a heat range below 230°C. This QA Inspector

made subsequent observations during the shift and noted that the work was completed on this date and appeared to be in general conformance to the contract specifications.

2. 14W/PP125/W3/W4 Lifting Lug Hole (Exterior)

This QA Inspector observed QC Inspector Sal Merino utilize a Bridge Cam Gage to measure the fit-up of the 20 mm plate in the B-U-4a joint on lifting lug hole 14W/PP125/W3/W4. This QA Inspector verified the fit-up as acceptable and employed a 65°C Tempilstik to ensure the minimum pre-heat temperature had been achieved. This QA Inspector randomly observed ABF welder Salvador Sandovol (welder ID 2202) performing the Shielded Metal Arc Welding (SMAW) process in the (1G) flat position and observed the QC Inspector verify the welding parameters were in accordance with the above mentioned WPS. This QA Inspector made subsequent observations throughout the shift to monitor quality and noted that the work was completed on this date and appeared to be in general compliance with the approved WPS and the contract specifications.

3. 14W/PP126.7/W5 Vent Hole (Exterior)

This QA Inspector randomly observed QC Inspector Sal Merino measure the pre-heat temperature of the B-U-4a Complete Joint Penetration (CJP) weld on vent hole 14W/PP126.7/W5. This QA Inspector observed ABF welder Jorge Lopez perform the SMAW process utilizing E7018-H4R electrodes in the (1G) flat position and also observed the QC Inspector monitor the welding and the parameters to ensure conformance with ABF-WPS-D15-1050A-CU. This QA Inspector made periodic observations to monitor quality and noted that the work was completed on this date and appeared to be in general conformance with the contract specifications.

4. 14W/PP127.2/W1 Vent Hole (Exterior)

This QA Inspector randomly observed QC Inspector perform fit-up operations on vent hole 14W/PP127.2/W1. The QC Inspector utilized a Bridge Cam Gauge to measure the planar offset to be within + or – 1 mm from “A” deck and this QA Inspector verified the fit-up as acceptable and employed a 65°C Tempilstik to ensure the minimum pre-heat temperature had been achieved. This QA Inspector randomly observed ABF welder Mike Jimenez (welder ID 4671) performing the Shielded Metal Arc Welding (SMAW) process in the (1G) flat position and observed the QC Inspector verify the welding parameters were in accordance with ABF-WPS-D15-1050A-CU. This QA Inspector made subsequent observations throughout the shift to monitor quality and noted that the work is in progress and appeared to be in general compliance with the approved WPS and the contract specifications.

This QA Inspector performed an "for information only" Magnetic Particle Inspection of the the areas adjacent to the lifting lug holes located at; 14W/PP128/W3, 14W/PP128/W4, 14E/PP128/W3, 14E/PP128/W4, 14W/PP125/W3, 14W/PP125/W4, 14E/PP125/W3 and 14E/PP125/W4.Upon completion of the testing it was noted that no rejectable indications were found.

Note: The QAI reviewed the observations and inspection with QA Lead Inspector, Daniel Reyes, written in this report. No issues were noted by the QAI and the QA Lead Inspector concurs with the QA report.

Summary of Conversations:

The were no pertinent conversations to report.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy 510-385-5910 , who represents the Office of Structural Materials for your project.

Inspected By:	Frey,Doug	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer